UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/523,455	03/10/2000	Jurgen Engel	PM 264671	5040

909 7590 10/25/2006

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER	
COTTON, ABIGAIL MANDA	
ART UNIT	**PAPER NUMBER**
1617	

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/523,455	ENGEL ET AL.	
	Examiner	Art Unit	
	Abigail M. Cotton	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/24/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the amendment and remarks submitted on August 24, 2006. Claims 1 and 4-25 are pending in the application and are being examined on the merits herein.

The rejection of claims 1 and 4-24 under 35 U.S.C. 11, first paragraph, as failing to comply with the written description requirement for reciting the phrase "resetting the menstrual cycle" and the phrase "the progestogen and/or the combined oral contraceptive preparation are administered starting during both the luteal phase and day 1 or 2 of the menstrual cycle," is being withdrawn in view of Applicant's amendment to claim 1. However, the Examiner notes that a new rejection of the claims is being made under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement, due to Applicants' amendments to the claims.

Applicants' arguments with respect to the rejection of claims 1 and 4-24 under 35 U.S.C. 112, second paragraph, have been fully considered. Applicants' amendments to the claims are sufficient to remove the rejection of the claims for the recitation of the phrase "especially" IVF, etc, as recited in claim 1, and to remove the rejection of claims 5-9 in particular for reciting "the LHRH-antagonist." However, Applicants' amendments to the claims have required a new ground of rejection under 35 U.S.C. 112, second paragraph, as being indefinite.

Applicant's arguments regarding the rejections of the claims under 35 U.S.C. 103(a) and the rejections of the claims for obviousness-type double patenting have been fully considered but they are not persuasive. Accordingly, these rejections are being maintained.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 4-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, the specification as filed does not provide support for "the progestogen and/or the combined oral contraceptive preparations are administered staring during the luteal phase of the menstrual cycle prior to the preceding menstrual cycle, or on day 1 or 2 of the preceding menstrual cycle" (emphasis added) as recited in claim 1. Instead, the specification discloses that "oral contraceptives or progestogen-only containing preparations are given in the

follicular phase, preferably starting at menstrual cycle day 1 or 2, or in the late luteal phase of the previous menstrual cycle" (emphasis added), as taught on page 3 of the specification. Thus, the specification provides support for starting during the late luteal phase or day 1 or 2 of the menstrual cycle that is before the cycle in which COS and ART is carried out (previous menstrual cycle), but does not provide support for starting in a menstrual cycle that is before the menstrual cycle preceding the COA and ART treatment, as claim 1 appears to recite. Appropriate correction and/or clarification is required. Claims 4-25 are rejected as being dependent upon a claim that does not comply with the written description requirement.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 4-25 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for reciting that "the progestogen and/or the combined oral contraceptive preparations are administered staring during the luteal phase of the menstrual cycle prior to the preceding menstrual cycle, or on day 1 or 2 of the preceding menstrual cycle" (emphasis added) as in claim 1. The claim is indefinite because it is not clear what is meant by starting administration during the menstrual cycle "prior to the preceding menstrual cycle." What "preceding" and "prior" menstrual cycles are being referred to hereby? Is the "preceding" menstrual cycle the cycle before the cycle in which COS and ART are performed (treatment cycle), making the "prior cycle" the menstrual cycle that occurs two cycles from the COA and ART cycle? Or is "preceding

cycle" meant to refer to the "treatment cycle" recited earlier in the claim, making the "prior cycle" the cycle that occurs immediately before the treatment cycle? The specification does not provide any guidance as to what is meant by the "prior" and "preceding cycles." Accordingly, the metes and bounds of the claim cannot be readily ascertained, and thus claim 1 is indefinite under 35 U.S.C. 112, second paragraph. Claims 4-25 are rejected as depending from an indefinite claim. Appropriate correction and/or clarification is required.

In the interests of compact prosecution and for the purposes of applying prior art, claim 1 is being interpreted as meaning that the progestogen and/or the combined oral contraceptive preparations are administered staring during either the luteal phase or day 1 or 2 of the menstrual cycle that immediately proceeds COA and ART treatment, i.e. the menstrual cycle immediately before the treatment cycle, as taught on page 3 of the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-5, 7, 10-11, 16, 18 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over (i) the article by Felberbaum et al. (or record) or Albano et al. (of record) or Engel et al (of record) or the article entitled "The Single or Dual Administration of the Gonadotropin-releasing Hormone Antagonist Cetrorelix in an In Vitro Fertilization-Embryo Transfer Program" by Olivennes et al, 1994, in view of (ii) the article entitled "Synchronization of Endogenous and Exogenous FSH Stimuli in Controlled Ovarian Hyperstimulation (COH)" by Ziegler et al, 1998, and further in view of (iii) U.S. Patent No. 5,470,847 to Garfield et al (of record) or the article entitled "Variable Tolerance of the Developing Follicle and Corpus Luteum to Gonadotropin-Releasing Hormone Antagonist-Induced Gonadotropin Withdrawal in the Human" by Hall et al.

Felberbaum et al. teaches that GnRH antagonists such as Cetrorelix and Ganirelix can be administered in an IVF program to avoid premature LH-surges (see summary, in particular.) Felberbaum et al. teaches that patients are treated with HMG

starting on day 2 (see summary, in particular), and thus teaches stimulation of ovarian follicle growth as in part (b). Felberbaum et al. teaches that the patients are administered cetrorelix from day 7 until induction of ovulation with HCG, and thus teaches suppression of premature ovulation by administering the LHRH-antagonist during the follicular cycle as in part (c), and induction of ovulation with HCG as in part (d) (see summary, in particular.) Felberbaum et al. also teaches performing IVF, as in part (e), and also as in claim 25 (see summary in particular.) Thus, Felberbaum et al. teaches a method for therapeutic management of infertility having steps (b)-(e) as recited in claim 1.

Albano et al. teaches a method for assisted reproduction in which an ovarian stimulation protocol is used (see abstract, in particular.) Albano teaches that the ovarian stimulation method involved administration of HMG during day 2 of the menstrual cycle and administration of the gonadotrophin-releasing hormone antagonist cetrorelix (LHRH antagonist) on day 6 of the menstrual cycle (follicular phase) (see abstract, in particular), and thus teaches steps (b) and (c) of the method. Albano et al. further teaches that ovulation is induced with HCG (see abstract, in particular), and thus teaches step (d). Albano et al. teaches the steps can be performed in a method of in-vitro fertilization (see introduction, in particular), and thus teaches step (e) and claim 25. Thus, Albano et al. teaches a method for therapeutic management of infertility having steps (b)-(e) as recited in claim 1.

Engel et al. teaches the treatment of fertility disorders by administering HMG to hyperstimulate the ovaries (see column 1, lines 10-25, in particular), as in step (b) administering an LHRH antagonist such as cetrorelix during the follicular phase, to reduce premature LH surges during stimulated cycles (see column 2, lines 1-15, in particular), as in step (c), and inducing ovulation with HCG (see column 1, lines 55-60, in particular), as in step (d). Engel et al. teaches that the method can be used in an assisted reproduction technique (see column 3, lines 15-40, in particular.) Thus, Engel et al. teaches a method for therapeutic management of infertility having steps (b)-(e) as recited in claim 1.

Olivennes et al. teaches providing a GnRH antagonist such as cetrorelix to prevent premature LH surges in an IVF-ET program (see abstract, in particular.) Olivennes et al. teaches that controlled ovarian hyperstimulation (COH) is carried out with hMG on day 2 of the menstrual cycle, with cetrorelix being administered during the hyperstimulation (follicular phase) (see abstract, in particular.) Olivennes et al. teaches that ovulation is triggered by administration of HCG (see paragraph bridging pages 469-470, in particular.) Thus, Olivennes et al. teaches a method for therapeutic management of infertility having steps (b)-(e) as recited in claim 1.

The references do not specifically teach programming the start of controlled ovarian stimulation by administration of a compound comprising a LHRH antagonist, a progestogen only preparation, a combined oral contraceptive preparation or a

combination thereof, wherein the LHRH-antagonist is administered during the luteal phase and the progestogen only preparation or combined oral contraceptive preparation are administered starting during the luteal phase or day 1 or day 2 of the menstrual cycle.

Ziegler et al. teaches the desirability of permitted advanced timing of the onset of controlled ovarian hyperstimulation (COH) (see page 561, right hand column, in particular.) Ziegler et al. teaches that it is difficult to properly time the onset of HMG administration (see introduction, in particular.) Ziegler et al. teaches that treatments were devised to improve scheduling of treatments for patients and team members by synchronizing FSH rises that initiate new menstrual cycles with the onset of HMG administration for COH (see page 563, left hand column, in particular.) Ziegler et al. teaches that oestradiol was used for timing the follicular phase increase in FSH to provide for the onset of HMG treatment (see discussion, first full paragraph, in particular), and further teaches that advanced programming of COH has been previously achieved with oral contraceptives (see paragraph bridging pages 563-564, in particular.) Ziegler et al. teaches that the oestradiol treatment was started 7.1 days before the onset of menses (luteal phase) and continued for 5 days thereafter (see results section, in particular.) Thus, Ziegler et al. teaches the desirability of permitting the advanced timing of COH treatments by starting the administration of a composition during the luteal phase to allow for advanced scheduling of treatments.

Accordingly, one of ordinary skill in the art at the time the invention was made would have found it obvious to provide advanced timing as taught by Ziegler et al. with the assisted reproductive techniques involving administration of HMG and ovarian stimulation such as COH of Felberbaum et al, Albano et al, Engel et al. and Olivennes et al, because the references teach assisted reproductive techniques involving stimulation with HMG prior to induction of ovulation with HCG, whereas Ziegler et al. teaches that a COH treatment involving HMG ovarian stimulation can be improved by providing advanced timing via administration of a composition to allow for improved scheduling of treatments. Thus, one of ordinary skill in the art would have found it obvious to combine the advanced timing method with the assisted reproductive techniques of Felberbaum et al, Albano et al, Engel et al. and Olivennes et al with the expectation of improving the efficiency of treatment scheduling and thus fertilization success with the advanced timing method.

Felberbaum et al, Albano et al, Engel et al, Olivennes et al. and Ziegler et al. do not specifically teach providing advanced timing by administration of a compound comprising a LHRH antagonist, a progestogen only preparation, a combined oral contraceptive preparation or a combination thereof.

Garfield et al. teaches that progestins and estrogens such as those in the "pill" inhibit the synthesis of LH-RH thus preventing the LH surge which is required for stimulation of growth, maturation and rupture of the Graafian follicle (see column 2, lines

1-20, in particular.) Thus, Garfield et al. teaches that progestins and estrogens such as those used in oral contraceptives can be used to arrest the menstrual cycle and inhibit the development of follicles and ovulation. Garfield teaches that typical contraceptives include combined estrogen and progesterone (a progestogen) as well as progesterone only (see column 2, lines 30-47, in particular.)

The article by Hall et al. teaches that administration of a GnRH antagonist (LHRH antagonist) in the midluteal phase results in luteolysis (see abstract, in particular.) Hall et al. teaches that three daily antagonist injections begun on day 4 or 5 after ovulation (luteal phase) resulted in menstrual bleeding within 24-48 hrs of the final day of the antagonist administration (see page 997, MLP studies, left hand paragraph, in particular.) Hall t al. teaches that seventy two hours of gonadotropin deprivation (due to GnRH antagonist administration) in the luteal phase resulted in prompt luteolysis in all subjects (see page 998, final paragraph, in particular.) Hall et al. further teaches that in human studies, complete luteolysis is demonstrated in response to GNRH antagonism (see page 999, left hand column first full paragraph, in particular.) Thus, Hall et al. teaches that administration of a GnRH antagonist during the luteal phase results in luteolysis and shortening of the luteal phase. Regarding the specific amount of antagonist administered Hall teaches administering 150 micrograms/kg (see abstract, in particular.) Furthermore, it is considered that one of ordinary skill in the art at the time the invention was made would have found it obvious to vary and/or optimize the amount of antagonist provided in the method, according to the guidance provided by Hall et al,

to provide the desired rate and extent of luteolysis. It is noted that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955.)

Hall et al. does not specifically teach providing an LHRH antagonist that is selected from the group of cetrorelix, teverelix, ganirelix, antide and abavelix. However, as discussed above, Felberbaum et al, Albano et al, Engel et al. and Olivennes et al. teach that cetrorelix is a GnRH antagonists (LHRH antagonist) suitable for administration. Accordingly, it would have been obvious to provide cetrorelix as the GnRH antagonist in the method of Hall et al. with the expectation of providing a suitable GnRh antagonist.

Accordingly, one of ordinary skill in the art would have found it obvious to provide the progesterone only or combined contraceptive of Garfield et al. or the GnRH antagonist (LHRH antagonist) of Hall et al. in the advanced timing method of assisted reproductive techniques of Felberbaum et al, Albano et al, Engel et al, Olivennes et al. and Ziegler et al, because Ziegler et al. teaches the desirability of providing controlled timing to allow for better scheduling of procedures and thus better effectiveness of the procedures, such as by controlling the menstrual cycle via oral contraceptives, whereas Garfield et al. and Hall et al. teach compositions that control the length and duration of the menstrual cycle, to inhibit follicular stimulation and ovulation as in the case of the

oral contraceptives of Garfield et al, and to increase the rate of luteolysis and decrease the duration of the luteal phase in the case of Hall et al. Thus, one of ordinary skill in the art would have found it obvious to provide the composition of Garfield et al. or Hall et al, in the method of Felberbaum et al, Albano et al, Engel et al, Olivennes et al. and Ziegler et al, with the expectation of providing control of the menstrual phases to provide advanced timing for the assisted reproductive techniques. Thus claim 1 is obvious over the recited references.

It is respectfully pointed out that the recitation that the method is for "increasing the quality of fertilized oocytes and embryos" to "optimize oocyte harvesting and fertilization", as recited in claim 1 has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *in re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152 88 USPQ 478, 481 (CCPA 1951.)

Regarding claim 4, it is considered that one of ordinary skill in the art at the time the invention was made would have found it obvious to vary and/or optimize the days on which the compositions are provided, according to the guidance provided by the references, to provide the advanced timing and scheduling of the assisted reproductive

techniques. It is noted that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955.)

Regarding claims 5 and 16, the references teach providing cetrorelix as the antagonist during the luteal phase as well as during ovarian stimulation, as discussed above. Regarding claims 7 and 18, Felberbaum et al. teaches administration of ganirelix as a GnRH antagonist, as discussed above. Regarding claims 10-11, Garfield et al. teaches oral contraceptives comprising progestogen and progestogen-only compositions for controlling stimulation of the follicle and ovulation, as discussed above. Regarding claim 21, the references teach ovarian stimulation with HMG, as discussed above.

Regarding claim 22, Garfield et al. teaches that clomiphene is a non-steroidal antiestrogen that stimulates ovulation by stimulating follicle growth and maturation (see column 3, lines 9-20, in particular.) Accordingly, it would be obvious to incorporate clomiphene into the assisted reproductive techniques as discussed above with the expectation of providing a suitable compound for ovarian stimulation. Regarding claims 23-24, Garfield et al. teaches that clomiphene is an antiestrogen that stimulates follicle growth and ovulation, whereas the Felberbaum et al, Albano et al, Engel et al. and Olivennes et al. references teach that HCG (a gonadotropin) is provided to induce ovulation, as discussed above. Accordingly, one of ordinary skill in the art at the time

the invention was made would have found it obvious to combine the clomiphene with the above-described assisted reproductive techniques using the gonadotropin HCG with the expectation of providing suitable stimulation and induction of ovulation for the assisted reproductive techniques.

Claims 6, 8-9, 17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over (i) the article by Felberbaum et al. or Albano et al. or Engel et al. or Olivennes et al, and (ii) Ziegler et al, in view of (iii) Garfield et al. or Hall et al, as applied to claims 1, 4-5, 7, 10-11, 16, 18 and 21-25, and further in view of (iv) U.S. Patent No. 5,945,128 to Deghengi et al (of record) or Rabasseda et al (of record.)

Felberbaum et al, Albano et al, Engel et al, Olivennes et al, Ziegler et al, Garfield et al. and Hall et al. are applied as discussed above, and teach providing a GnRH antagonist (LHRH antagonist) such as cetrorelix or ganirelix in the therapeutic fertility management technique as recited in claim 1. The references do not specifically teach providing teverelix, antide or abavelix, as recited in claims 6, 8-9, 17 and 19-20.

Dehgenghi teaches that cetrorelix, teverelix, ganirelix and antide are known to be LHRH antagonists (GnRH antagonists) (see column 2, lines 19-23, in particular.)

Rabasseda et al teaches that LHRH-antagonists (GnRH antagonists) such as cetrorelix, ganirelix and abarelix are known to be useful in the treatment of female infertility (see introduction and Table 1 of page 397, in particular.)

Accordingly, one of ordinary skill in the art at the time the invention was made would have found it obvious to provide the antagonists of Deghenghi or Rabasseda et al. in the method of Felberbaum et al, Albano et al, Engel et al, Olivennes et al, Ziegler et al, Garfield et al. and Hall et al, with the expectation of providing a suitable GnRH antagonist (LHRH antagonist) in the method. Furthermore, regarding the specific amount of the antagonist provided, it is considered that one of ordinary skill in the art at the time the invention was made would have found it obvious to vary and/or optimize the amount of the antagonist provided in the method, according to the guidance provided by the references, to provide the desired advanced timing and/or ovulation control. It is noted that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955.)

Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over (i) the article by Felberbaum et al. or Albano et al. or Engel et al. or Olivennes et al, and (ii) Ziegler et al, in view of (iii) Garfield et al. or Hall et al, as applied to claims 1, 4-5, 7, 10-11, 16, 18 and 21-25, and further in view of (iv) U.S. Patent No. 4,016,259 to Kent (of record.)

Felberbaum et al, Albano et al, Engel et al, Olivennes et al, Ziegler et al, Garfield et al. and Hall et al. are applied as discussed above, and teach providing an oral contraceptive combination of a progestogen and estrogen in the therapeutic fertility management technique as recited in claim 1. Garfield et al. further teaches that the oral contraceptive compositions can be administered sequentially (i.e. in phases) (see column 2, lines 20-50, in particular.) The references do not specifically teach providing a combination of progestogen and an estrogen such as ethinyl estradiol or mestranol, as recited in claims 12-15.

Kent discloses that the combination of progestogens and estrogen such as mestranol and ethinylestradiol is useful in animal contraception (see column 1, lines 20-25, in particular.)

Thus, one of ordinary skill in the art at the time the invention was made would have found it obvious to incorporate the contraceptives of Kent into the method of Felberbaum et al, Albano et al, Engel et al, Olivennes et al, Ziegler et al, Garfield et al. and Hall et al, with the expectation of providing a suitable oral contraceptive for the timed fertility management method.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 4-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,319,192 to Engel et al. in view of the Ziegler et al, Hall et al, Dhegenghi, Rabasseda et al and Kent references as applied above. The instant claims differ from those in the patented case because the patented case only recites providing an LHRH-antagonist with stimulation of ovarian follicle growth, ovulation induction and intrauterine insemination, whereas the instant case further recites a programming step involving the LHRH antagonist or a progestogen composition. However, the combination of such a programming method

with an infertility treatment is obvious over the teachings of Ziegler et al, Hall et al, Dhegenghi, Rabasseda et al and Kent, as discussed for claims 1 and 4-25 in the 103(a) rejection made above. Accordingly, the instant claims are not patentably distinct from those in the patented case.

Response to Arguments

Applicant's arguments regarding the rejections of the claims under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

In particular, Applicants argue that it would not be obvious to perform the claimed method because the prior art does not teach or suggest combining COS and ART with a programming of the menstrual cycle. Applicants argue that the references teaching COS and ART, namely Felberbaum et al, Albano et al, Engel et al and Oliveness et al, do not teach or suggest the desirability of timing the start of the treatment program. The Examiner notes that the Ziegler et al. reference is being used to teach the desirability of controlling the timing of the onset of treatment in order to allow better scheduling of procedures, as has been discussed above. The Examiner notes that, with regards to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that Ziegler et al. does not teach the specific method of controlling the timing of the onset of COS and ART treatment. The Examiner notes that the Ziegler et al. reference is being applied for its teaching of the general desirability of controlling the timing of the techniques, and it suggestions that such timing could be controlled with oral contraceptives, such as administration of contraceptives during the luteal phase prior to the treatment. Thus, Ziegler et al. provides motivation to those of ordinary skill in the art to provide controlled timing of the treatment cycle in order to allow better scheduling, and teaches that the use of oral contraceptives can be employed for such timing. The Examiner notes that the Garfield et al. reference and the Hall et al. reference are being applied as references teaching that the menstrual cycle can be controlled (i.e. either prolonged or shortened) with combined or progesterone only oral contraceptives (which arrest the menstrual cycle) and GnRH antagonists (which shorten the menstrual cycle.)

Applicants also argue that the method of Ziegler et al. does not affect the timing of the onset of menstrual bleeding (see paragraph bridging pages 13-14 of Remarks submitted August 24, 2006.) The Examiner notes that the Ziegler et al. reference teaches controlling the FSH levels for the onset of COH, and teaches that it is known to control the duration of the menstrual cycle in order to provide such programming (See page 563, in particular), and thus it is considered that Ziegler et al. teaches the general

desirability of providing oral contraceptives and other methods of controlling the onset of the menstrual cycle and/or hormones associated with the onset of the menstrual cycle.

Applicants also argue that Ziegler et al. teaches against programming the onset of a COH protocol by administration of oral contraceptives because Applicants assert that Ziegler et al. teaches that that synthetic molecules present in oral contraceptives may have deleterious effects. The Examiner respectfully disagrees with this interpretation of Ziegler et al. Ziegler et al. teaches that the contraceptive pill has in fact been used for the programming of cycles in previous studies (see page 563, left hand column, in particular), and thus teaches that using oral contraceptives are a suitable method for achieving such programming, although Ziegler et al. also teaches that they believe that controlling the cycle with estradiol may be an improvement because not synthetic molecules are required to be used. The fact that Ziegler et al. teaches that the estradiol only method is an improvement over other methods is not considered to be a teaching against such methods, and in fact Zielger et al. indicates that such prior methods using oral contraceptives have been effective.

Applicants further argue that LHRH antagonists were considered to interfere with mechanisms involved in germinal vesicle breakdown and cell signaling pathway driving the oocyte into meta phase II, and to interfere with other general mechanisms, and Applicants cite a number of references that supposedly show this state of the art. The Examiner respectfully disagrees with this assertion. The Examiner notes that the

Felberbaum et al, Albano et al, Engel et al and Oliveness et al. references all teach GnRH or LHRH antagonists that are safe and effective for use with assisted reproductive techniques, whereas the Hall et al. reference teaches that GnRH antagonist shorten the luteal phase of the menstrual cycle, thus rendering it obvious to combine with a method such as that in Ziegler to provide timing of menstrual cycles for assisted reproductive techniques.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abigail M. Cotton whose telephone number is (571) 272-8779. The examiner can normally be reached on 9:30-6:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMC

SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER